

WHAT IS CLAIMED IS:

- 1 1. An ink tank, comprising:
2 an ink chamber, formed with a vent port allowing atmospheric air to
3 enter therein and an ink outlet from which ink is taken out;
4 an optical member, having an ink contact face capable of contacting
5 with ink contained in the ink chamber, the ink contact face including a detection
6 face at which a remaining amount of ink in the ink chamber is optically
7 detected in accordance with an amount of air entered into the ink chamber via
8 the vent port; and
9 a first ink absorbing member, disposed in the vicinity of the ink
10 contact face, and capable of absorbing the ink in the ink chamber.

- 1 2. The ink tank as set forth in claim 1, wherein the ink chamber includes:
2 a first chamber, formed with the vent port and containing a second ink
3 absorbing member capable of holding ink therein; and
4 a second chamber, disposed between the first chamber and the ink
5 outlet and containing the first ink absorbing member and the optical member.

- 1 3. The ink tank as set forth in claim 1, wherein the first ink absorbing
2 member is placed at an ink flow passage between the optical member and the
3 ink outlet .

- 1 4. The ink tank as set forth in claim 1, wherein the first ink absorbing
2 member is disposed away from the detection face.

1 5. The ink tank as set forth in claim 2, further comprising:
2 a first filter, partitioning the first chamber and the second chamber,
3 the first filter comprised of a first porous material having a first porousness so
4 as to allow ink and air bubbles to pass therethrough; and
5 a second filter, partitioning the second chamber and the ink outlet, the
6 second filter comprised of a second porous material having a second
7 porousness finer than the first porousness so as to allow substantially only ink
8 to pass therethrough,
9 wherein the first ink absorbing member has a third porousness
10 coarser than the first porousness.

1 6. The ink tank as set forth in claim 5, wherein the first ink absorbing
2 member is comprised of at least one of a foam material and a felt material.

1 7. The ink tank as set forth in claim 1, wherein the optical member is a
2 prism provided with a pair of reflective faces serving as the detection face.

1 8. The ink tank as set forth in claim 2, further comprising a partition
2 member which partitions the second chamber into a bubble storage located in
3 the vicinity of the first chamber and an ink reservoir located in the vicinity of the
4 ink outlet, the partition member formed with an introduction port which
5 introduces ink from the bubble storage to the ink reservoir,
6 wherein the detection face of the optical member is placed in the ink
7 reservoir.

1 9. The ink tank as set forth in claim 8, wherein the detection face is
2 placed in the vicinity of the introduction port.

1 10. The ink tank as set forth in claim 8, wherein the introduction port is
2 located at a corner portion defined by wall faces of either the partition member
3 or the second chamber.

1 11. The ink tank as set forth in claim 8, wherein the partition member is
2 provided with pieces projecting into the ink reservoir to retain the first ink
3 absorbing member therebetween.

1 12. The ink tank as set forth in claim 8, wherein the partition member
2 defines an ink flow passage extending from the introduction port to the first ink
3 absorbing member via the detection face.

1 13. An ink jet printer, comprising
2 an ink jet print head;
3 the ink tank as set forth in claim 1, which supplies ink to the ink jet
4 print head via the ink outlet; and
5 a detector, which optically detects the remaining amount of ink in the
6 ink tank based on a condition of the detection face.